QUANTA
QL USERS AND TINKERERS ASSOCIATION

Memory Lane Computing becoming a distant memory

Just Words have more mapping solutions up their sleeve

New software on the horizon another emulator?

NEW KID ON THE BLOCK

JAVA

2012

JUN
JUL

The Magazine

For all things QL related since 1984

Information on the Association

Membership of QUANTA, the independent QL user group, is by annual subscription. The Membership Secretary can supply full details. Copies of the association's constitution & annual accounts are available from the Secretary. There is an extensive software library. There are active national subgroups. Details are given in the Member's Guide and in this magazine.

QUANTA Committee - 2012/2013

Chairman: Sarah D. Gilpin 181, Urmston Lane, Stretford, Manchester. M32 9EH
Email: chairman@quanta.org.uk Tel: 0161 865 2872

Secretary: Alison Southern 40, Distaff Road, Poynton, Cheshire. SK12 1HN
Email: secretary@quanta.org.uk Tel: 01625 850067

Treasurer & Membership Secretary: John Gilpin 181, Urmston Lane, Stretford, Manchester. M32 9EH
Email: treasurer@quanta.org.uk Tel: 0161 865 2872
Email: membership@quanta.org.uk

Magazine Editor: Lee Privett. 37, Swanage Road, Southend on Sea, Essex. SS2 5HX.
Email: editor@quanta.org.uk

Librarian: David Buckley 136, Denton Lane, Chadderton, Oldham. OL9 8PS
Email: librarian@quanta.org.uk Tel: 0161 622 1600

Helpline & News Editor: Dilwyn Jones 22 Erw Las, Coetmor New Road, Bethesda, Gwynedd. LL57 3NN
Email: helpline@quanta.org.uk Tel: 01248 601599
Email: news@quanta.org.uk

Web Administrator: Keith Dunbar 44, Dalton Avenue, Stretford, Manchester. M32 9TP
Email: webadmin@quanta.org.uk Mobile: 07789 483 800

Back Issues Requests: Basil Lee 31 Fairdale Gardens, London. SW15 6JW
Email: backissues@quanta.org.uk Tel: 0208 789 1976

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EDITORIAL   Lee Privett

S o what do you want first, the good news or the bad news, well I should really leave that to our illustrious News Editor, but suffice to say you will be able to pick out the disappointing stuff from the hopeful indications that some things may be afoot in the QL world.

Apart from that, as I prepared this magazine I added another example of text from a previous issue to the back page plea for articles. I would like to point out, that it is not there just for your amusement and entertainment. QUANTA cannot survive on just core contributors, we need copy, we need articles, we need your support, however small, to fill the magazine with anything QL related for the interest or all. As I flick back to editorials from my predecessor, I sadly see this is not a new scenario. Continuing the parallel universe of that which is the Raspberry Pi for just a moment, you would have seen some last minute news about the magazines competition. We are sponsoring some prizes for the first QUANTA member who manages to get the a Raspberry Pi computer fitted in to a QL case and running emulation software (Linux based) for QDOS/SuperBASIC. These computers are now being distributed, I have one myself, and there is a flurry of activity amongst the QL scene in getting some of this to a possibility. It looks like the RP foundation would have sold in excess of 100,000 computers by the end of the year, so the potential at least to get the emulation software up and running could be one possible solution to expanding the QL user base.

QUANTA NEWS   Dilwyn Jones

I f you have QL-related news items that you'd like us to include on this page, please get in touch with News Editor - Dilwyn Jones at **news@quanta.org.uk**

Java QL Emulator

W olfgang Lenerz is working on a Java-based QL emulator, which is based on a 68000 emulator by Tony Headford. The emulator is currently at the alpha-testing stage. Wolfgang has kindly written a short article about it elsewhere in this issue.

Spectrum 30th Anniversary

Urs König writes:

Friday, April 23th 1982 - At a press conference at the Churchill Hotel, Clive Sinclair revealed to the world his new personal computer, the ZX Spectrum. The rest is history!

Happy 30th birthday anniversary, Speccy!

My birthday present is a video (follow link) for you guys to enjoy!

http://youtu.be/Kh4hkIyjdNE

Sinclair ZX Spectrum

30th Birthday Anniversary 2012

The Movie

Please have a look to the video description for more information including a *News Ticker* plus a download link to the exclusive "Media Kit".

Feel free to share/spread/use this as you like.

Another interesting link:

http://www.bbc.co.uk/news/technology-17776666

With a Dickinson/Altwasser interview (Sinclair staff who worked on the Spectrum design)

How long was it between the Spectrum and QL launches? So, the QL will soon be 30 too. How do you think we should celebrate that when the time comes?

QStripper

Norman Dunbar writes:

QStripper has been updated [first] to version 1.04 thanks to Geoff Wicks who supplied me with a lot of conversion codes for the DOS version of Quill. I've added these in and so far, everything looks good.

Version 1.03 came and went. There was a problem - still is - with the Euro character in Windows. It has always been a problem but while it converts happily in Linux where the Euro is character $80 or 128, in Windows 32 bit, at least, the Euro is character $80 or 128 but displays as a blob in character sets that have the Euro (Courier NEW for

example). I can still type in a Euro with no problems, but I think it's a two byte Unicode Euro that is used and not a single character one.

However, UFN, the Euro on Windows is a problem.

The download location is at https://sourceforge.net/projects/qstripper/files/ and from there you can pick your required OS version.
Sourceforge offer me free web sites, a forum, and lots of other stuff like bug trackers etc.

I've taken advantage of the web site option and created http://qstripper.sourceforge.net which is a dedicated web site for Qstripper.

Qstripper has been updated again after that. The new version is 1.06 and the changes, which only comprised about a dozen lines of code, means that a new export option is available.

Now you can export your Quill files to Open Document Format, which can be read by the Open Office/Libre Office suite.

The project website at http://qstripper.sourceforge.net has had a slight makeover too.

And as if Norman's hard work was not enough, this software has now

been added to the Softpedia database of software for the Windows operating system. It is featured with a description text, screenshots, download links and technical details on this page:

http://www.softpedia.com/get/Office-tools/Other-Office-Tools/QStripper.shtml

To quote Norman Dunbar: "Looks like QStripper has become quite famous!"

PS2 Mouse Project

A DIY PS2 (USB) Standard mouse adaptor project has been released by a user in Italy. The project lets you connect a PS2 style mouse to the QL via the CTL ports and it acts like a cursor-emulating mouse, in other words, like a joystick connected to the CTL port. The author of the

project details states that he has tested it with the ICE system with good results.

You can find it at:

http://www.qlforum.co.uk/viewtopic.php?f=2&t=379

That page includes a link to let you download the project instructions and diagrams as a zipped file.

PS2 Mouse Project

Updates From Bob Spelten Jr.

Bob Spelten Jr. writes:

I have just uploaded my improved website. This includes two new

freeware programs.

One is a Screen Viewer called SQRview. This can display BMP, PIC, PSA, SCR & SPR files in all modes and has many save options, the ability to change picture ratios, save native pic files, unravel multiple sprites and convert images to sprites.

The other is a QDOS version of SuQcess, SuQ120e. It is not as powerful as the SMSQ/E version 2.05 but all known bugs have been fixed.

Bob Spelten's updated website

The Utilities page also has a new tool for chaining sprites and an update for The Qwatch clock program.

Screen dump from the SQRview program

Memory Lane Computing Withdraws From QL Market

Adrian Ives of Memory Lane Computing has announced his intention to withdraw from QL hardware development. On 9th June he wrote:

"I am sorry to announce that I have taken the decision to withdraw from developing QL hardware. In the current economic climate, it is no longer practical to devote resources to such a small (almost non-existent) market, and I need to concentrate my energies elsewhere. Unfortunately this means that I have withdrawn from the QL-SD project.

I understand that Peter is talking with other parties who may be more able to bring the QL-SD to market. I wish them all the best and will make available the source code for the already written drivers to allow this to happen as painlessly as possible.

Plans for Q-BUS have also been shelved. Thank you to the few people who have expressed a genuine interest in new QL hardware."

THE JUST WORDS! MAPPING PROJECT   Geoff Wicks

Way back in 1985 the now defunct QL World published a program by Alan Prior to draw a map of the world. At the time the QL had graphics that were superior to any other computer in the same price bracket, and the program was a good advertisement for the QL.

What Alan had done was to copy a map of the world onto tracing graph paper and then painstakingly note the east and west points of each country. These he converted to QL x,y graphics coordinates and drew the map using the LINE command.

I used Alan's technique in my election analysis program to draw an interactive political map of the UK. It involved hours of work noting the details for over 600 constituencies, but once the data was inputted I could use it in numerous ways. I could draw maps of first places,

second places, third places and fourth places. I could see how the political map of the country would change by small swings in the support for each party.
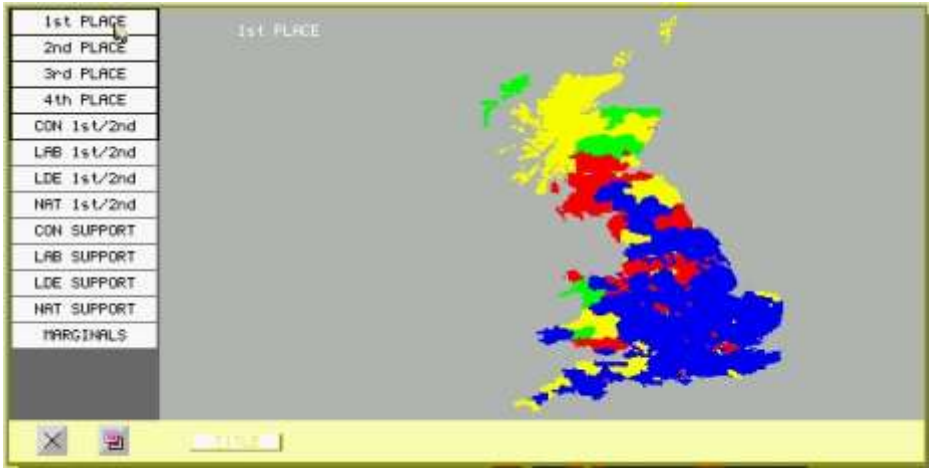
There is another big shortcoming with maps drawn in this way. I discovered it a few years ago when Dilwyn Jones asked my help for a program he had written. The program used a database downloaded from the internet to note the location of the first part of a UK postal code. Dilwyn asked me if I could add a map to the program to display the information graphically.

I soon discovered this was more difficult than I initially thought. Some towns were plotted accurately but others not. Portsmouth was spot on, but Aberdeen appeared well inland. The more northerly a town the greater the inaccuracy. I had fallen foul of the curvature of the Earth, and the only solution was to introduce a correction which varied

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QL.

according to the latitude of the town. It was an unscientific approach that at best gave an approximate location.

At about the same time a development occurred that revolutionised QL mapping. Hugh Rooms was working on software and hardware for GPS systems and, as an extension to that work, he wrote an article for QL Today on converting latitude and longitude into QL x,y coordinates corrected for the Mercator Projection (QLT v12 i3 p45).

The mathematics were horrendously complicated and we had to develop new production techniques to reproduce the formulae in QL Today, but the end result was relatively simple equations to calculate the values of x and y for any given latitude and longitude:

xcoordinate = .75*longitude

ycoordinate=(180/PI)*LN(TAN((latitude*PI)/360+PI/4))

Hugh pointed me to a site on the internet from where I could download mapping data. These were huge data files varying in compressed form from 3.1Mb for Europe to 10.6Mb for Asia.

Expanded these files were 11.7Mb and 40.4Mb respectively. At the time Hugh did not have a broadband connection and I downloaded them on his behalf.

```
POSTCODE    : AB10
DISTRICT    : Aberdeen
LATITUDE    : 57.13
LONGITUDE   : -2.11
X (metres)  : 392900
Y (metres)  : 804900
```
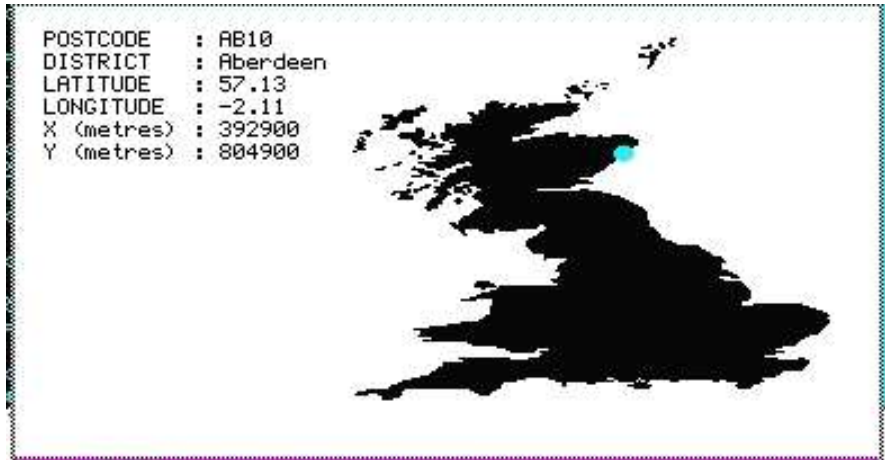
The databases had to be edited and converted to make them suitable for use in the programs Hugh was developing. I soon discovered the snags of trying to edit a 40Mb document. None of the PC wordprocessors and text editors I possess could handle it, but one QL program could.

Perfection seems to be able to load and process practically anything you throw at it, provided you have sufficient memory on your machine. I set QPC2 to its maximum memory of 128Mb.

To allow QL Today readers to try out Hugh Room's program I extracted maps of the countries where the QL-ers are still active. These cut down data bases were still large. The UK database contains 97,000 data pairs and is 943Kb. Large databases are necessary as the maps have to be plotted dot by dot using the QL's POINT command.

Printing out a database of this size is clearly impossible so I posted the databases on the old Just Words! website.

The difference in quality between maps drawn using Alan Prior's method and using the databases can be seen from screenshots of an early version of the map from the postcodes program and of the current version. The map can now give an exact location of a postcode instead of an approximate one.


```
POSTCODE      : AB10
DISTRICT      : Aberdeen
LATITUDE      : 57.13
LONGITUDE     : -2.11
X (metres)    : 392900
Y (metres)    : 804900
```
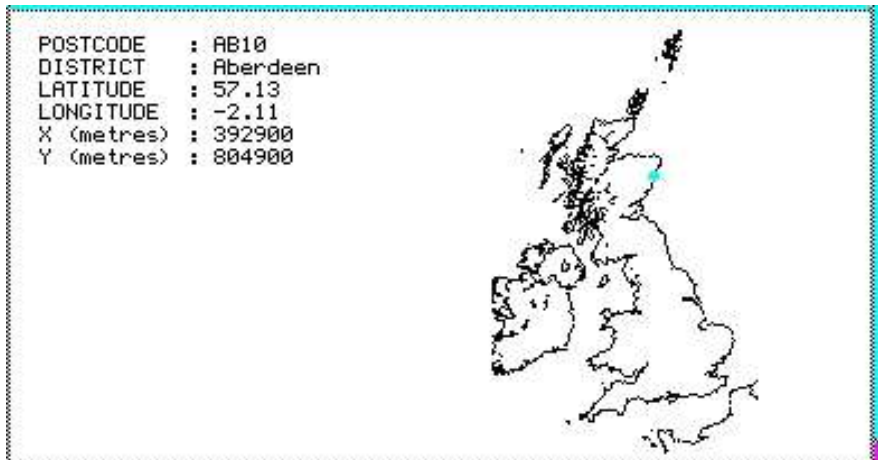
The databases could only be used with Hugh Room's program, but late last year I converted them into QL x,y coordinates to make it easier to incorporate them into QL programs. I launched a QL friendly maps page on the new Just Words! website including a toolkit comprising a manual and several short SuperBASIC utility programs.

To understand the databases you have to image a map of the world

being converted into a huge QL graphic with its origin at latitude 0, longitude 0. This is a point in the Atlantic Ocean just west of Gabon in Africa. In practice this means you have to have a good mastery of the QL's SCALE command. The maps toolkit contains a short program to analyse a database to calculate suitable parameters for the SCALE command and then plot the map.

Obviously the full sized databases are too large to be incorporated into SuperBasic programs and another program allows you to cut the size of a database. The database built into the postcodes program is one twentieth of the size of the original. You will, however, have to experiment to get the right balance between size and quality.

Another program allows you to extract a smaller geographical area from a database. Examples are given in the toolkit of maps of East Anglia and the Orkney and Shetland Islands.

A final program allows you to convert a database into SuperBasic data lines. You will have to judge when this is practical and when not. Obviously mapping is a minority interest, but if it is one of your interests you now have a new QL resource.

The QL maps page can be found on the Just Words! website:

www.gwicks.net/justwords.htm

The postcodes program is on the downloads page and includes the source code as well as the compiled program.

SMSQMULATOR   Wolfgang Lenerz

'␣ve recently started work on an SMSQE emulator running under Java. The purpose is to have an SMSQE machine that runs under a normal Java Virtual Machine and which runs all of your SMSQE programs.

So the program comes in three parts : an MC68000 emulation core, SMSQmulator itself and a special version of SMSQE adapted to it.

As you will have guessed from the name, it is not a really QL compatible machine, since the OS is SMSQE and not any version of QDOS or Minerva. This means that old games, which only work on non-expanded Qls will probably not work.

SMSQmulator is based on a MC68000 emulator, which emulates a 68000/68008 (as used in the QL). Perhaps in the future, I'll make it 68020 compatible. I haven't written the MC68000 emulation core itself, but used the efforts of a man called Tony Headford.

My first task was to debug that emulator, which I seem to have done now (and BTW, does anybody know how to get into contact with Tony Headford ? I'd like to send him my bugfixes).

After that, I've adapted SMSQE to the new machine. I've made quite some headway, and have today a functioning machine, even though there are still some features missing.

The state of the project as it is now :

SMSQmulator is working. You get a normal SMSQE emulator running the latest version of SMSQE, just like, for example, QPC (but much slower).

Keyboard and mouse work, KEYROW works. There is no sound, though.

You can have the normal QL colours (mode 4 or 8 – the latter without flash, though), or a 16 bit colour mode (i.e. Mode 32).

You can have a screen of any size you want provided it is at least 516x256 resolution (you wouldn't really want anything smaller, do you?).

If you use a QL sized screen and 4 colour mode, you'll get a QL compatible mode, where the screen lies at address $20000, just like for a QL.

You can have 1 to 64 MB of memory – I generally use 16.

You get access to the native file system through two new devices : NFA (native file access) which lets you read/write to the native file system and SFA which does the same but preserves QL File headers, so that you can do, for example, EX sfa1_XCHANGE.

All programs I've been able to throw at SMSQmulator work, including, for example, QPAC2, the Lonely Joker, Xchange etc.

Right now there are no more bugs that I'm aware of (and as soon as I have written these lines, one or several will, of course, pop up)..

Actually, SMSQmulator compiles itself and I use it now for all SMSQE development for itself.

A device to read (and perhaps later, write) QLX.WIN files is currently in progress and I should hopefully have this done in a few weeks. Officially, SMSQmulator, whilst it has come a long way, is still in alpha stage.

I'll move it into beta stage once I have finished the QXL.WIN access. Right now, it is still software that is more for the tinkerer than for somebody using it in earnest, despite the fact that I do use it in earnest to develop SMSQE for it.

Issue 4 is on its way to the readers (or has arrived) - we are ready for Volume 7! Are you ready too? If not, you can subscribe on www.QLTODAY.com

Re... ab... Dil... QL eBo... Initiative!

An Android ...blet computer displaying a Toolkit 2 guide

54 pages!

This is NOT a Win 8 magazine

Definitely Not!

The story of the SER-USB driver continues... Adrian Ives provides us with more details about his "serial Nightmare"

Did we mention **54 pages?**

Just to be different!

Another Games Review by Peter Scott

Time to Renew! If you have not done it yet, please use renewal form or renew online at www.QLToday.com

Ian Burkinshaw explains how to use the Parallel Port for other things than printing...

QL Today Volume 17

We at QL Today are now in our 16th year and the 17th is coming up soon! The issue 1 of Volume 16 came with a DVD (included in the price) containing all previous issues of QL Today in PDF format - from Volume 1 to Volume 15, English and German (as long as German ones were produced). We ask for early renewals as this allows us to plan ahead. We are thinking about about another "goodie" next volume, but this also depends on the renewal situation. Saving on sending out reminders gives us extra pages to add to the magazine.

You can subscribe by using this form (or a copy of it), or subscribe online via www.QLToday.com (the form can be downloaded), by email, letter, fax etc. ... we are flexible!

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One or two caveats, though :

SMSQmulator is slow. I've speeded it up a bit since the first versions, it now runs at about a quarter of the speed of QPC on the same machine in « fast » mode.

There is no sound. I don't know whether there ever will be. SMSQmulator uses a special version of SMSQE. Right now, this is supplied in source form. SMSQmulator is and will be freeware. You'll be able to download the Java parts of it freely.
Wolfgang

REVIEW OF SQRVIEW   Dilwyn Jones

SQRView is a new and free graphics viewer program written by Bob Spelten Jr for GD2 systems (e.g. QPC2, Q40, Aurora, QXL). It's capable of viewing QL file formeats including:

- QL PIC files – graphical files created from QL pointer environment programs.
- QL PSA files – Partial Save Area files, as created by several of George Gwilt's programs.
- QL SCR files – uncompressed QL screen files.
- QL sprite files of any colour mode.
- Windows .BMP graphics files, up to 24-bit colour formats.

To use the program, you need to have a recent version of SMSQ/E which includes the high colour modes mode 16 (Aurora), 32 (QXL or QPC2) or 33 (Q40 or Q60). You also need to have the Menu Extension from Jochen Merz installed, and the Q-Liberator compiler runtimes version 3.36. The program comes with a nine page manual as a plain text file.

I set it up in my Launchpad front end program and was pleased to find it ran first time without issue.

When you start the program, it just shows a blank screen and asks if you'd like to load a screen.
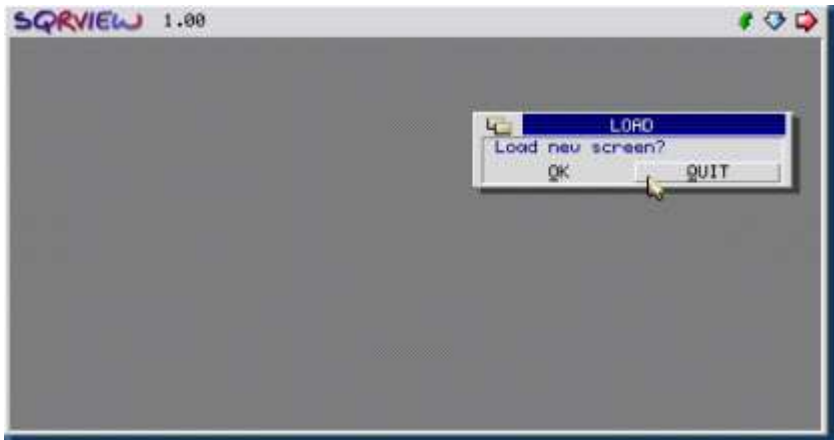
Startup screen

Loading a file is as simple as using the file selection menu from the Menu Extension. It defaults to listing files with the configured default file selection, or you can select 'No' to get a list of all files.

Here, I have loaded a mode 32 picture of a QL. It was a picture of VGA size (640 x 480 pixels) so the program resized its windows automatically to display it. Readers of the colour PDF version of the magazine will get a better idea of how the colour pictures are displayed.

SQRview showing a PIC file from my system

As you load the file, it asks if you want to stretch or reduce the picture. This allows you to correct the picture if it looks a bit squashed or elongated.

Stretching by ratios of 3:2 and 4:3 are possible, while pictures can be reduced 3:4 or 2:3.

This next picture shows the effect of reducing the above picture using the 2:3 ratio (although the above picture is correct, it shows what the program does):

The same picture reduced by 2:3

Where the graphic file stores information about the picture width, height and mode number these are taken automatically from the file.

In the case of headerless QL screen files, the program will ask you to confirm the width, height and mode, although sometimes the program deduces from file length what some picture sizes might be.

Once loaded, if you right click or DO on a picture, you get a little status menu which displays information about the currently loaded

picture, and also displays an option to Save – the file type depends on the file type loaded.

If you hit near the edge of a program, you can trim or crop a few pixels at a time from the edge of a picture – to remove an unwanted border or something right at the edge of the picture.
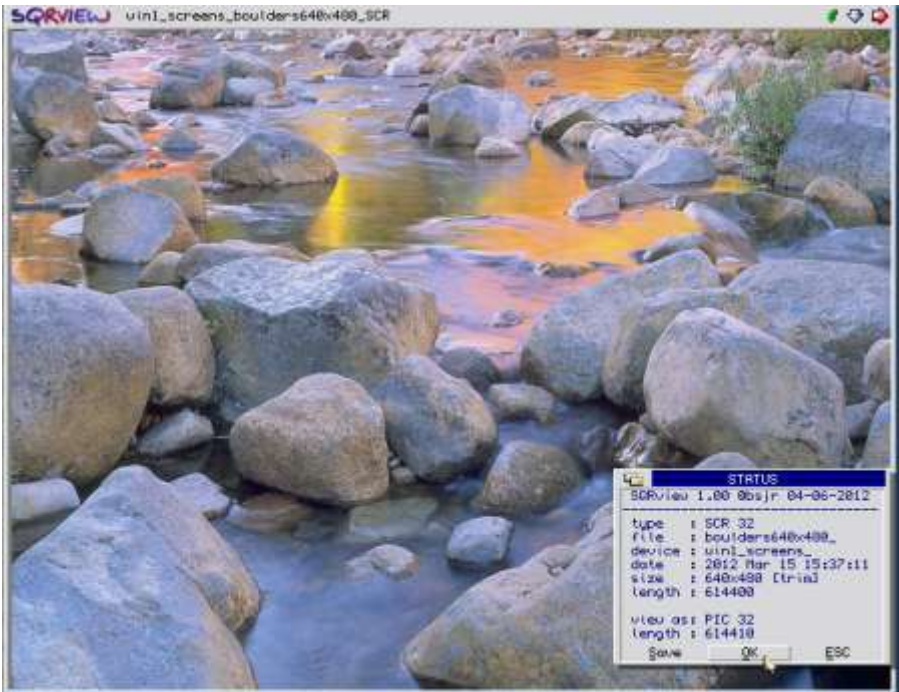
Status menu

Having satisfied myself it loaded screen, pic, psa and BMP files (the usual picture files) OK, I turned to QL sprite files.

These are smaller (usually!) icon files used in pointer driven QL programs. They can usually be identified by having the filename extension "_spr".

This was of particular interest to me as I have been working on a program which makes extensive use of QL sprites, both small ones used as icons and larger ones used as background pictures, so it was handy that I came across SQRview to help me view all these icon files on my QL emulator.The program can display some very large sprites, as long as these will fit onto the display. It is not possible to pan or scroll sprite files larger than the menu window, so the only way to do this would be to convert to a PIC file for example then view that.

The manual goes into some detail about what you can and can't view and do with sprite files. Suffice to say that most situations are catered for, including transparencies and mode conversion.

The next picture shows a background sprite from my forthcoming Q-Dock program. The chequered background is what is behind the sprite, so that you can see the transparent sections between the shelf and the bottom strip.
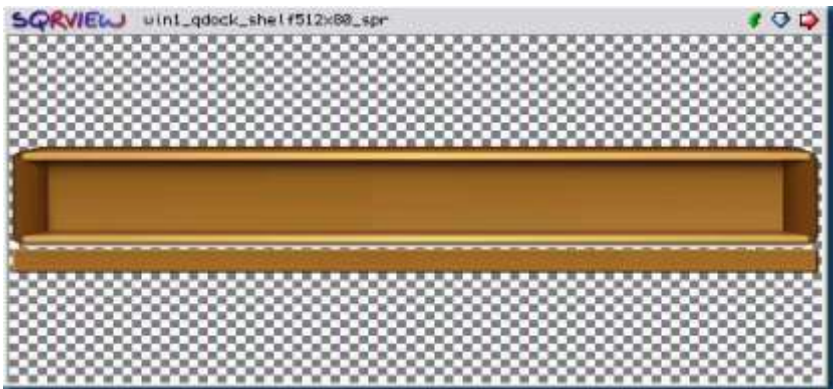
SQRview showing a sprite with part transparency

RWAP Software

We have been working hard to safeguard the future of the Sinclair QL through creating an online QL Wiki backed by a repository of QL titles.

The QL Wiki enables people to see what software and hardware was produced for the Sinclair QL. The repository enables people to purchase working copies when their microdrive cartridges fail, or they move onto disks or emulators. Where we can, we obtain permission from the copyright holders to re-release items on the market.

This has enabled us to bring some of the titles back to the market as well as re-kindle interest in the Sinclair QL and its emulators.

Old favourites brought back to life include:
E.V.A., Vroom
Black Knight, Double Block
Jungle Eddi, The Lost Pharaoh
Pengi, the Lonely Joker
Microdeal's Flight Simulator, QL Hopper, The King,
Night Nurse and Cuthbert in Space
Mortville Manor, Darkside of the Moon (£10)

We still retain our existing catalogue, including:
Open Golf, Return to Eden,
Stone Raider II, The Prawn,
Hoverzone, Lost Kingdom of Zkul,
Deathstrike, Horrorday,
Flightdeck and QWord

All games are available on disk or for use with Q-emuLator on the PC from ONLY £5 each.

Microdrive versions also available - from £10 each.
Memory / system limits may apply - please check before ordering.

Visit the QL Wiki for more details on software, books and hardware for the Sinclair QL:
www.rwapadventures.com/ql_wiki

RWAP Software
3 Dale View Court, Fulford, Stoke-on-Trent
Staffordshire ST11 9BA
Tel: 01782 398143
Email: rich@rwapservices.co.uk

Website:
www.rwapsoftware.co.uk   or   www.sellmyretro.com

Vroom by Pyramide

E.V.A by Westway

Mortville Manor by Pyramide
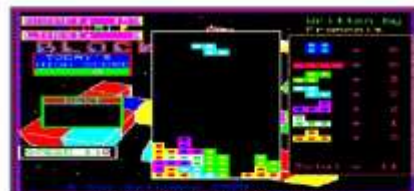
Double Block by Francois Lanciault

Night Nurse by Microdeal

If you want to move the program around the display, there is no MOVE icon per se. Instead, drag the filename strip at the top of the window to move the program display around the screen.

If you load a small sprite, the program displays blocks of colour (the mode 8 colours) and you can move the sprite around to see how it will look against the various background colours.
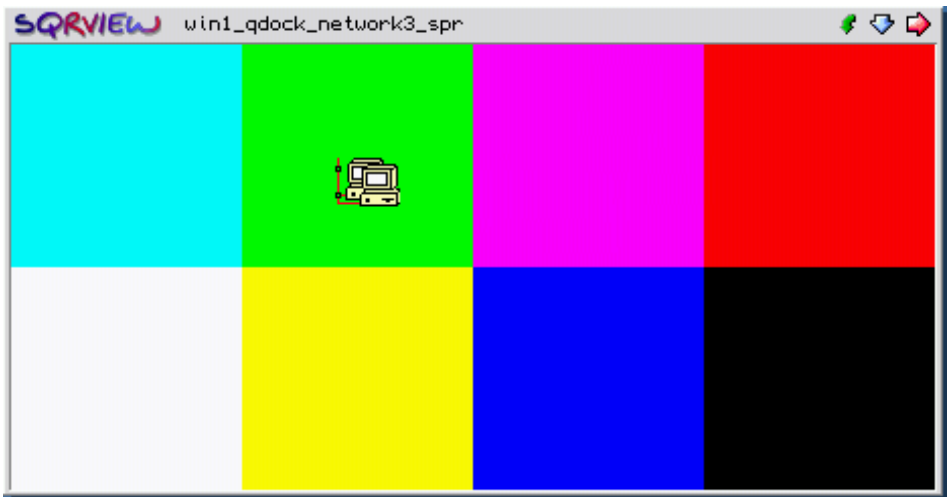
Displaying small sprites against colour backgrounds

Despite limitations such as not being able to pan/scroll very large sprites and the slight quirkiness of the operation (I found it hard to get used to using the Quit icon to load a new picture, for example) this is a very versatile and useful viewer.

It not only lets you view all sorts of QL and BMP graphics files but

can also do some file conversions via its Save options.

Verdict: very useful.

REVIEW OF SMSQ/E SPRITE CONVERTER   Dilwyn Jones

T his is a handy little Windows program by Marcel Kilgus, author of QPC2. It allows you to convert the PNG file format graphics into QL sprite format.

The application consists of the main program PNGconv.exe and a .dll file to go with it. Both should reside in the same folder on the Windows hard disk and the program is called simply by starting the program file PNGconv.exe, which is quite small by Windows program standards at just under 250KB.

There's also a little README.TXT file consisting of minimal instructions, although if you are familiar with QL sprites everything is contained in a single screen in the program and it is just a matter of selecting the drive and folder containing the PNG graphic files, highlighting the files to convert, then selecting the required output options for the QL sprites to be generated. The program has a preview window which shows a quick preview of the PNG file last clicked on.

The output format can be Assembly or Binary depending on whether you want to use the output as ready made sprites, or include them as

assembler listings. In the Sprite Data section of the menu, you can specify a name to be used for the labels when generating assembler source code, If you don't specify a name, it uses part of the filename instead. You can also select whether the sprite generated uses a '.' Or '_' in the filename as a separator. If the files are to be transferred immediately to a QL environment, you would normally select the underscore option, unless you want to edit the generated assembler in a Windows text editor, for example.

The program can generate QL sprites in mode 16 (Aurora 8-bit 256 colour mode), mode 32 (16 bit colour for QPC or QXL), or mode 64 (32 bit RGB colour). As yet there is no QL system which natively uses the 64 bit colour modes, although SMSQ/E does do a certain amount of mode conversion of sprites automatically. The higher the colour mode, the larger the sprite file generated, but since RLE (Run Length Encoding) compression can be applied to sprites this need not be too much of a worry for small QL sprites.

One of the reasons why the PNG format is used is that it can supports transparent colours and colour masks, and icons are commonly distributed as collections of PNG files on the internet (although there are of course plenty of free Windows programs like IrfanView which can convert most Windows graphics formats to PNG for use with this Sprite Converter). The program supports the three type of mask – bitmask, solid and alpha channel.

Bitmask is where a colour pixel is either completely transparent or completely opaque, with nothing in between. Alpha allows up to 256 transparency levels, or degrees of transparency, from opaque to completely see-through (allows you to see the background through the sprite's colour areas to various degrees). Solid means no mask – the sprite is completely opaque. While transparency is useful for fancy graphic displays, the need for 8 bits per pixel of the mask area means it needs more memory for the mask – the sprites generated are bigger. A mask also makes sprite drawing slightly slower, but for most applications the difference is negligible.

There is also the option to add a small shadow under the sprite, which can be a very effective addition where the sprites are to be used in certain applications. This adds a pixel or two to the height of the sprite, so be aware of this if using the shadow option.

The final option lets you specify sprite origin coordinate. 0x0 means top left of the sprite, whereas values of -1 for both x and y the middle of the sprite becomes the origin.

Once all options have been set just click on the CONVERT button and it will set about converting all. Conversion is fast – on my PC it appears to be pretty instantaneous.

The sprite files are output to the same folder as the original PNG files.

This is not usually a problem, although it can be less convenient when converting a large number of files to sprites, then you have to manually pick out the converted files to transfer, whereas an option to output to a separate folder would make transfer of large numbers of icons easier.

This is one of those programs which fulfils a particular need and does it very well. It is fast, very easy to use, and makes light work of the task of converting Windows icons and graphics files to QL sprites to include in pointer driven programs we write for the QL.. The only addition I would crave for is to be able to output the QL sprites to a separate folder.

Download the Sprite Converter from the author's website at:

http://www.kilgus.net/smsqe/sprtconv.html
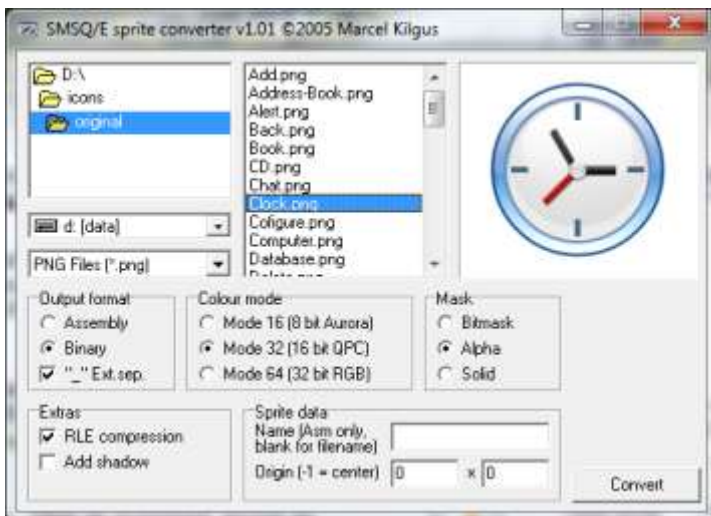
Screen dump from the Sprite Converter

QUANTA HELPLINE   Dilwyn Jones

M embers wishing to submit helpline requests via email can use the email address helpline@quanta.org.uk or if you prefer to use traditional post, please send the helpline request to me via the address printed inside the front cover of the newsletter.

Obviously, we cannot guarantee to answer every query we receive, but we will do our best! Where we have been unable to answer the queries, we may print the help request as an open request in the newsletter to ask if any of the readers can come up with a solution. And, of course, if readers feel that they have a better solution than we came up with, or would like to correct any errors we make, please write to us!

RAM DISCS

Q. I know how to save and load to and from a ramdisc, but not much more about them. I've heard of two different types: "static" and "dynamic". What's the difference and which would be best for me to use? I have a QL with a Gold Card.

A. A static ramdisc has a fixed size, set by a FORMAT command. For example, FORMAT RAM1_100 would create a ramdisc of size 100 sectors. Each sector is 512 bytes, so a 100 sector ramdisc in

theory holds up to 50kilobytes of data. In practice, things are never quite that simple with computers!

Some of the capacity is used by the system to keep a list of files stored, and each file might be a multiple of 512 bytes even if only one or two bytes long, because whole sectors are assigned.

So if you want to copy a full microdrive cartridge to a ramdisc you may have to format the ramdisc to a slightly higher number of sectors than that of the cartridge itself.

Once you have created the ramdisc, it remains at that size in memory even if you delete all the files from it. To release the memory you have to reformat it to a different size, or use FORMAT RAM1_0 to remove it completely.

Most ramdisc systems allow up to 8 ramdiscs numbered from RAM1_ to RAM8_. It is completely up to you whether you use one large ramdisc or up to eight smaller ones depending on what you want to achieve and how you use the data.

For example, back in the early days of the QL when I had a memory expansion card but no floppy disc drive, I used to copy the Psion program cartridges to memory to work faster. Although it meant I had to remember to copy the documents and data to cartridges before switching off the QL or all would be lost – the contents of a ramdisc

are forgotten when the QL is reset or switched off.

A 'dynamic' ramdisc on the other hand is a bit more flexible and automatic than a 'static' one. What the term 'dynamic ramdisc' actually means is that the ramdisc changes its size automatically as required (as long as the QL has not run out of memory of course). The dynamic ramdisc does not need formatting – if the system realises that a ramdisc is full, it will ask the QL to grant it enough extra sectors to add more files.

The first ramdisc software for the QL was a static one, until the first dynamic ones came along.

At first, it would appear that the dynamic ramdisc is much better than a static one as you never have to format it and it never fills up (unless the entire computer memory fills up).

Indeed, most people use a dynamic ramdisc for this very reason and it is usually the best choice in most cases. However, there are circumstances when the static variety can be better than the dynamic ones:

Where a fixed size ramdisc is needed for some reason, e.g. to have the same capacity as a floppy disc or microdrive cartridge for copying, or for 'temporarily' running microdrive software from RAM, ensuring it never gets too big to copy back to the cartridge.

Ever heard of the term "common heap fragmentation"? This is a

horrible QL disease whereby continually allocating and releasing chunks of memory while also running several programs and other activities at the same time causes the computer's memory to become fragmented, or broken up into small chunks which may not be contiguous – chunks may be split by other sections still in use and so on, so eventually the QL finds it can't get a big enough continuous chunk to allocate on request, with the result that the computer seems to run out of memory. Modern ramdiscs have some checks built in to reduce the risk of this, but it is still a theoretical risk.

The good news though is that the ramdiscs on more modern systems such as the Gold Card generally supports both types so you can choose which type to use, or better still just leave it to the computer to decide. With most modern systems ramdiscs default to 'dynamic' type so that you can just go ahead and use them without having to turn them on or use a FORMAT command. But the static types are also there, so if you want a fixed size ramdisc, just use the FORMAT command as described above.

Q. What else should I know about a ramdisc?

A. The name of a ramdisc can be changed if need be. So instead of the names RAM1_ and RAM2_ their names can be changed to, say, MDV1_ and MDV2_. This can be quite useful when you want to run microdrive-based software from a fast ramdisc. Just copy all the files from the microdrive cartridge to the ramdisc, then change the name of the ramdisc drives to MDV with the following command:

RAM_USE MDV

This command makes the ramdiscs pretend to be microdrive cartridges. The downside of this command is that in most cases the Microdrives then cannot be used until the ramdisc name is changed back to the original name with a command such as RAM_USE RAM. If you have copied a program to ramdisc and saved some files, you cannot copy these back to the microdrive cartridges until you have restored the names.

Note that the three letter name after the RAM_USE command can be in upper case or lower case, and usually may be quoted or unquoted: RAM_USE "MDV" is usually the same as RAM_USE mdv

Note that not all ramdisc systems have a RAM_USE command – older systems or stand-alone ramdisc software may not include the command.

Many modern systems with ramdisc software built in have a very useful additional ramdisc facility called microdrive imaging. This allows the content of a microdrive cartridge to be loaded much faster than usual to a ramdisc. To use this facility, we use a special version of the FORMAT command with both the name and number of a ramdisc and the name and number of a microdrive:
FORMAT ram1_mdv1

This will create a fixed size ramdisc with all the files it could copy off the cartridge.

If you use a DIR command to list the files in the ramdisc afterwards, you may (if unlucky) see that one or more of the filenames have an asterisk after them.

This indicates that the file is damaged – one or more of the sectors of the file have not copied properly. This may indicate that the file is damaged on the cartridge, although you may find that a cartridge which fails in one drive will sometimes work fine in another. While that can be a reasonable test of a microdrive cartridge's integrity, it is always vital to keep backup copies of them.

I hope this explains a bit about ramdiscs and helps you get acquainted with some of their lesser used features.

A NEW BOOK IN TOWN   Lee Privett

QUANTA members who also subscribe to the only other QL periodical, would have noticed several points raised in the latest issue about QUANTA's subscribers. Also In that in the same issue (Volume 16, 4) an article about Dilwyn's e-Book initiative. With reference to the possibility of an e-Book version of Jan Jones, well that is some way off yet, if at all. However, as the 'QL SuperBASIC—The Definitive Handbook' would serve just the existing QL community, it's reprint would do little to

expand QL interest and attract new people to the QL, its software and emulators, in particular young people.

I can reveal here that a new QL book has just been published (June 2012) as an e-Book and is available free on iTunes and currently for reading on the iPad. The book "Back 2 the QL" is basically a collection of material from my website and experiences about the Sinclair QL.

It is not targeted at seasoned QL veterans such as those who subscribe to QUANTA, and the 'other' magazine as they would not

find anything new in this publication.

In order to attract a much wider and younger audience we need to get to them through a

SUBGROUP MEETINGS

Sub group meetings are where QUANTA members and non-QUANTA members get together to discus, tinker and explore all things QL related. If there is a subgroup near you then why not pop along and see what's happening, you never know there may be something you could help with or a problem that you know the answer to. If there is not a sub-group near you why not hold one yourself? (Ed.)

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THE WEST MIDLANDS QL USER GROUP

The meeting place is called the Bull, the address is 1 Price Street, Birmingham, B4 6JU. It is approximately 7 minutes walk from Snow Hill main-line railway station and has ample street parking nearby. Meetings remain open to QUANTA members and non-members alike.

After your first meeting you're expected to pay £1 each time towards the organisation and monthly newsletter costs - except once a year when the group pays all those who attend a pound instead ;-)

We provide food twice a year for those who attend the AGM and the group's birthday party) and at meetings we discuss all sorts of things, QL-related and otherwise, usually from about 8:20pm onwards till 10:30 or later. The group owns QL hardware, a disk library and subscribes to relevant magazines. People can join the mailing list for £3.50 per year, even if they can't attend regularly.

Meetings: Meetings are usually on the first and third Monday of each month (but not on bank holidays unless the previous one was cancelled for that reason).
Contact: The contact number remains Mike Bedford White's, on 0121 605 4438, anytime after 11am.
Email: mikebwhite@blueyonder.co.uk

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QUANTA DORSET SUBGROUP – Dorset

Meetings are held, on the second Sunday of each month between 2.00pm and 5.00pm. For location please contact: John Penn-Simkins - 01202 422491 or John Mason - 01425 275894

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LONDON QL AND QUANTA GROUP

Meetings are held in the School Room, which is the basement of the Borough Welsh Congregational Chapel, 90, Southwark Bridge Road, London SE1. This is almost opposite the junction with Marshalsea Road, at the other end of which, 5 minutes walk away, is the Borough Underground Station. Free parking is easily available in Southwark Bridge Road for road users, Cyclists are welcome. Members currently each pay a subscription of £40 per year towards the cost of the hire of the hall and a small additional charge is made for tea/coffee - biscuits are then provided free.

Please bring your QL equipment if possible, all types welcome, e.g., PC portable running emulators. The Group has some systems stored at the venue for its use. In addition, there are lots of donated second user equipment, books, magazines, etc., available for purchase. Time: 2.00 pm. to 5.00 pm., on the second Sunday of the month. No meetings are held in December / January - winter break, or July / August –the summer break, giving 8 meetings a year. Malcolm Cadman - 020 8691 5780 Email: QL@mcad.demon.co.uk

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NEMQLUG - THE NORTH EAST MANCHESTER QL USER GROUP

Meetings are held at 181, Urmston Lane, Stretford, Manchester. M32 9EH (Near Junction 7 of M60 Motorway •Was Junction 7 M63 Motorway). Our informal meetings start at 7 p.m. and finish at 11 pm. All welcome. Meetings are on the last Thursday of each month (except December). John/Sarah Gilpin – 0161 865 2872 (thegilpins@btinternet.com)

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SCOTTISH QL USERS GROUP

S QLUG meets at George Gwilt's home every second Sunday in the month. Please contact George Gwilt before coming, to get the location. Gdggler@gmail.com

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SOLENT SUBGROUP

M eetings are at Botley Market Hall, all welcome. Park at the back and use side entrance on the 1st Saturday of the month from 2.00 pm to 6.00 pm. Graham Evans - 023 8040 3350.

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SURREY QUANTA SUBGROUP (SQSG)

T he group is currently trying other venues in the Leatherhead - Epsom area. If you plan to attend but do not get our emails, please phone or email Ken Bain for the latest location. Meetings are 8.00 to 10.00 pm on the last Wednesday of each month except December. Ken Bain - 01932 347432 (to midnight), kenb@bcs.org.uk

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SUSSEX QL USER GROUP

C urrently without a meeting place, anyone interested should contact Roy Wood - 01273 430501 or Keith Mitchell - 01903 742263.

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medium and technology that they currently use and understand, and I feel this is currently through iTunes.

It has taken about 6 months to compile the book covering 6 main areas of the QL to give the reader a taste about not just the computer itself but the fun you can have with it.

I make no apologies for the blatant use of the Raspberry Pi connection and I even have an extracted quote from Eben Upton

video referring to the QL in the description.

I have included many of the main QL people in the book with the hope that some readers may look further and follow the web links and who knows we may even get a few new members (young people) subscribing to QUANTA (or even that other magazine).

The book just doesn't contain text and pictures, it has some interactive parts as seen in the following image, with video and web links to all the usual sites. I am now thinking about a second e-Book and would welcome suggestions and ideas as to what could be put in

there.

FINALLY <u>   </u> **Lee Privett**

UANTA now has an easier to remember Facebook page, you can find us here at:
http://www.facebook.com/QUANTA.org

A reminder that QUANTA are running a competition for those of you enterprising enough to get a working QL emulated on a Raspberry Pi all within a QL black box, committee members are excluded from this. We have a number of prizes lined up for the lucky winner to choose from including software and hardware so get those thinking caps on.

This 2D platform game with plenty of humour
required p   xel precision in
order to su   te the game. The
ZX Spectru   oney for Sinclair,
caught the   ention just at the
right tim   ue slightly
less su   built a
loyal fol   press. One
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Sinclair O   nd if the
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I WANT YOU FOR A
QUANTA ARTICLE